

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)
Matthias BOLTZE et al.) Group Art Unit: 2836
Application No. 10/828,496) Examiner Michael Rutland Wallis
Filed: April 21, 2004) Confirmation No. 4305
For: VEHICLE ELECTRICAL SYSTEM)
WITH FUEL CELL AND PROCESS)
FOR OPERATING AN ELECTRICAL)
CONSUMER IN SUCH A VEHICLE)
ELECTRICAL SYSTEM)

REPLY BRIEF

Mail Stop: Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following is presented in response to the Examiner's Answer issued February 12, 2008, as corrected in the Communication issued March 7, 2008, in connection with the appeal proceedings relating to the above-captioned patent application.

Response to Positions of the Examiner

First, it is submitted that the Examiner's position that "Appellant's argument is directed to the boundary of the DC/DC converter box, not the utility of using a DC/DC converter and unconverted channel in a power conditioning system" is consider an artifice that places form over substance. Such a statement ignores the substance of the arguments to which it is directed, i.e., that it would be unobvious to use an unconverted channel of a DC/DC converter in a power conditioning circuit because there is no evidence (outside of the present application) that doing so would achieve Jungreis' goals of reducing complexity or costs or increasing efficiency rather than defeating the reduction in complexity and reduction of costs achieved by Jungreis' circuit. Even using the Examiner's boundary of the converter box approach, why would Jungreis (who is seeking a reduction in complexity and a reduction of costs), go to the trouble of running a circuit around the DC/DC converter box if it was apparent that further simplification and cost reduction could be obtained simply by directly connecting the power source to the DC/DC converter using an unconverted channel running through the box of the DC/DC converter?

It is believed that the following analogy will clearly place in focus the difference between the present invention and the teachings of the Raiser and Jungreis patents. For purposes of comparing the elements of the analogy to those of the applied prior art, reference should be made to the following comparison table:

Analogy Element	Prior Art Element
AC power socket	fuel cell (Raiser)
AC/DC converter	DC/DC converter (Raiser)
DC output	first converted DC output (Raiser)
AC output	second converted DC output (Raiser)
consumer of DC	consumer of converted DC
consumer of DC or AC	consumer of unconverted DC
double-outlet power strip	disclosure of Jungreis

Imagine a person of ordinary skill in the art in a room that has only a single AC power socket to which an AC/DC converter is connected, the AC/DC converter providing two different converted DC voltages. (So far this situation is comparable with the disclosure of Raiser.)

In the room, there are several electrical consumers, one group that can be operated with a DC voltage and a further group that can be operated either with a DC voltage or with an AC voltage. Moreover, the person finds a double-outlet power strip in the room that could be directly connected to the single AC power socket. (The double outlet power strip corresponds to the disclosure of Jungreis.) Further, let us assume that this person has access any tools he might need.

If the person in this room under these circumstances wants to operate several consumers, that person would definitely connect the DC consumers with the DC output of the AC/DC converter. However, if the person wants to operate a consumer that can selectively be operated with either a DC or an AC voltage, there are two apparent possibilities. One possibility is to operate the consumer with a DC voltage by connecting the consumer to a DC output of the AC/DC converter. The other possibility is to use the double outlet power strip to directly provide an AC voltage to the AC capable consumer (this is the concept of the Jungreis disclosure), while the AC voltage can be still provided to the AC/DC converter.

Acting in the above noted manner, the person of ordinary skill would have acted consistent with the level of ordinary skill in his art and in a manner consistent with applicants' position as to how the teachings of the Jungreis and Raiser patent would be logically applied without the need to conduct any inventive activity. However, neither possibility represents the claimed invention.

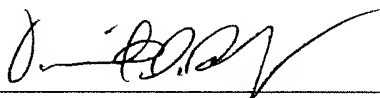
On the other hand, there present invention would be more comparable with that person of ordinary skill located in such a room deciding, e.g., instead of using the available power strip, to modify the AC/DC converter by using the available tools, such that an unconverted AC voltage is delivered at one of the outputs of converter. To reach this illogical decision, the person of ordinary has to ignore the common sense motivation to use the existing the double outlet power strip (Jungreis) which requires virtually no effort at all and the successful effect of which would be know from experience, and instead, that person

has to make the effort to modify a perfectly good AC/DC converter, taking the risk that that modifications may render it useless. Yet, this is exactly what the Examiner is asserting would be obvious choice when he argues that Raiser would be given an unconverted channel that is not disclosed to exist (only two converted channels are disclosed) instead of running an unconverted channel around (in bypassing relationship to) the DC/DC converter from a source of unconverted DC voltage as is the clear teaching of Jungreis. However, it should be apparent that no one of any skill in the art would go to the effort and take the risk of modifying a perfectly good DC/DC converter when a perfectly good stand solution exists in accordance with the teachings of Jungreis to simply run a bypass line around the DC/DC converter from the source of unconverted DC voltage to the unconverted DC voltage consumer. Thus, it should be apparent to the Board that without the teachings of the present invention, applicants' invention as defined by the claims on appeal would not be obvious to a person of ordinary skill having only the teachings of the Raiser and Jungreis patents and the common knowledge of such a person.

Therefore, reversal of the final rejection of the appealed claims is in order and is respectfully requested.

The right to an oral hearing is waived.

Respectfully submitted,

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